#2



OIPE

RAW SEQUENCE LISTING DATE: 03/26/2002 PATENT APPLICATION: US/10/051,186 TIME: 09:31:38

Input Set : N:\Crf3\RULE60\10051186.raw
Output Set: N:\CRF3\03262002\J051186.raw

1 <110> APPLICANT: Adamou, J., et al. 2 <120> TITLE OF INVENTION: Calcitonin Gene Related Peptide Receptor 3 <130> FILE REFERENCE: PF129C1 4 <140> CURRENT APPLICATION NUMBER: 10/051,186 5 <141> CURRENT FILING DATE: 2002-01-22 7 <150> PRIOR APPLICATION NUMBER: 09/455,442 8 <151> PRIOR FILING DATE: 1999-12-06 11 <150> PRIOR APPLICATION NUMBER: 08/461,250 12 <151> PRIOR FILING DATE: 1995-06-05 13 <150> PRIOR APPLICATION NUMBER: PCT/US95/01587 ENTERED 14 <151> PRIOR FILING DATE: 1995-02-03 15 <150> PRIOR APPLICATION NUMBER: PCT/US94/09235 16 <151> PRIOR FILING DATE: 1994-08-16 17 <160> NUMBER OF SEQ ID NOS: 9 18 <170> SOFTWARE: PatentIn version 3.0 20 <210> SEQ ID NO: 1 21 <211> LENGTH: 3034 22 <212> TYPE: DNA 23 <213> ORGANISM: Homo sapiens 24 <400> SEQUENCE: 1 60 cacqaqqqaa caacctctct ctctscagca gagagtgtca cctcctgctt taggaccatc 25 120 aagctctgct aactgaatct catcctaatt gcaggatcac attgcaaagc tttcactctt 26 tcccaccttg cttgtgggta aatctcttct gcggaatctc agaaagtaaa gttccatcct 180 gagaatattt cacaaagaat ttccttaaga gctggactgg gtcttgaccc ctggaattta 240 28 300 29 agaaattett aaagacaatg teaaatatga teeaagagaa aatgtgattt gagtetggag acaattgtgc atatcgtcta ataataaaaa cccatactag cctatagaaa acaatatttg 360 30 420 aataataaaa acccatacta gcctatagaa aacaatattt gaaagattgc taccactaaa 31 480 aagaaaacta ctacaacttg acaagactgc tgcaaacttc aattggtcac cacaacttga 32 540 caaggttgct ataaaacaag attgctacaa cttctagttt atgttataca gcatatttca 33 tttgggctta atgatggaga aaaagtgtac cctgtatttt ctggttctct tgcctttttt 600 34 tatgattctt gttacagcag aattagaaga gagtcctgag gactcaattc agttgggagt 660 35 720 tactagaaat aaaatcatga cagctcaata tgaatgttac caaaagatta tgcaagaccc 36 780 37 cattcaacaa gcagaaggcg tttactgcaa cagaacctgg gatggatggc tctgctggaa 840 cgatgttgca gcaggaactg aatcaatgca gctctgccct gattactttc aggactttga 38 tccatcagaa aaagttacaa agatctgtga ccaagatgga aactggttta gacatccagc 900 39 960 aagcaacaga acatggacaa attataccca gtgtaatgtt aacacccacg agaaagtgaa 40 1020 gactgcacta aatttgtttt acctgaccat aattggacac ggattgtcta ttgcatcact 41 gcttatctcg cttggcatat tcttttattt caagagccta agttgccaaa ggattacctt 1080 42 1140 acacaaaaat ctgttcttct catttgtttg taactctgtt gtaacaatca ttcacctcac 43 1200 44 tgcagtggcc aacaaccagg ccttagtagc cacaaatcct gttagttgca aagtgtccca gttcattcat ctttacctga tgggctgtaa ttacttttgg atgctctgtg aaggcattta 1260 45

cctacacaca ctcattgtgg tggccgtgtt tgcagagaag caacatttaa tgtggtatta

ttttcttggc tggggatttc cactgattcc tgcttgtata catgccattg ctagaagctt

1320

1380

46

47

RAW SEQUENCE LISTING DATE: 03/26/2002 PATENT APPLICATION: US/10/051,186 TIME: 09:31:38

Input Set : N:\Crf3\RULE60\10051186.raw
Output Set: N:\CRF3\03262002\J051186.raw

```
atattacaat gacaattgct ggatcagttc tgatacccat ctcctctaca ttatccatgg
                                                                               1440
48
                                                                              1500
         cccaatttgt gctgctttac tggtgaatct ttttttcttg ttaaatattg tacgcgttct
49
         catcaccaag ttaaaagtta cacaccaagc ggaatccaat ctgtacatga aagctgtgag
                                                                              1560
50
         agctactctt atcttggtgc cattgcttgg cattgaattt gtgctgattc catggcgacc
                                                                              1620
51
         tgaaggaaag attgcagagg aggtatatga ctacatcatg cacatcctta tgcacttcca
                                                                              1680
52
         gggtcttttg gtctctacca ttttctgctt ctttaatgga gaggttcaag caattctgag
                                                                              1740
53
         aagaaactgg aatcaataca aaatccaatt tggaaacagc ttttccaact cagaagctct
                                                                              1800
54
                                                                              1860
         tcgtagtgcg tcttacacag tgtcaacaat cagtgatggt ccaggttata gtcatgactg
55
                                                                              1920
         tcctagtgaa cacttaaatg gaaaaagcat ccatgatatt gaaaatgttc tcttaaaacc
56
         agaaaattta tataattgaa aatagaagga tggttgtctc actgtttggt gcttctccta
                                                                              1980
57
         actcaaggac ttggacccat gactctgtag ccagaagact tcaatattaa atgactttgg
                                                                               2040
58
                                                                               2100
         ggaatgtcat aaagaagagc cttcacatga aattagtagt gtgttgataa gagtgtaaca
59
         tccagctcta tgtgggaaaa aagaaatcct ggtttgtaat gtttgtcagt aaatactccc
                                                                               2160
60
                                                                               2220
61
         actatqcctq atqtqacqct actaacctqa catcaccaag tgtggaattg gagaaaagca
         caatcaactt ttctgagctg gtgtaagcca gttccagcac accattgatg aattcaaaca
                                                                               2280
62
         aatggctgta aaactaaaca tacatgttgg gcatgattct acccttattc sccccaagag
                                                                               2340
63
         acctagctaa ggtctataaa catgaaggga aaattagctt ttagttttaa aactctttat
                                                                               2400
64
         cccatcttga ttggggcagt tgacttttt tttttcccag agtgccgtag tcctttttgt
                                                                               2460
65
         aactaccctc tcaaatggac aataccagaa gtgaattatc cctgctggct ttcttttctc
                                                                               2520
66
                                                                               2580
         tatgaaaagc aactgagtac aattgttatg atctactcat ttgctgacac atcagttata
67
         tcttgtggca tatccattgt ggaaactgga tgaacaggat gtataatatg caatcttact
                                                                               2640
68
         tctatatcat taggaaaaca tcttagttga tgctacaaaa caccttgtca acctcttcct
                                                                               2700
69
         gtcttaccaa acagtgggag ggaattccta gctgtaaata taaattttgc ccttccattt
                                                                               2760
70
         ctactgtata aacaaattag caatcatttt atataaagaa aatcaatgaa ggatttctta
                                                                               2820
71
         ttttcttgga attttgtaaa aagaaattgt gaaaaatgag cttgtaaata ctccattatt
                                                                               2880
72
                                                                               2940
         ttattttata gtctcaaatc aaatacatac aacctatgta atttttaaag caaatatata
73
         atgcaacaat gtgtgtatgt taatatctga tactgtatct gggctgattt tttaaataaa
                                                                               3000
74
                                                                               3034
         ataqaqtctq qaatqctaaa aaaaaaaaa aaaa
75
77 <210> SEQ ID NO: 2
78 <211> LENGTH: 461
79 <212> TYPE: PRT
80 <213> ORGANISM: Homo sapiens
81 <400> SEQUENCE: 2
         Met Glu Lys Lys Cys Thr Leu Tyr Phe Leu Val Leu Pro Phe Phe
83
         Met Ile Leu Val Thr Ala Glu Leu Glu Glu Ser Pro Glu Asp Ser Ile
84
85
                                          25
                     20
         Gln Leu Gly Val Thr Arq Asn Lys Ile Met Thr Ala Gln Tyr Glu Cys
86
87
         Tyr Gln Lys Ile Met Gln Asp Pro Ile Gln Gln Ala Glu Gly Val Tyr
88
89
         Cys Asn Arg Thr Trp Asp Gly Trp Leu Cys Trp Asn Asp Val Ala Ala
90
91
                                                  75
         65
                             70
         Gly Thr Glu Ser Met Gln Leu Cys Pro Asp Tyr Phe Gln Asp Phe Asp
92
93
94
         Pro Ser Glu Lys Val Thr Lys Ile Cys Asp Gln Asp Gly Asn Trp Phe
                     100
                                          105
                                                              110
95
         Arg His Pro Ala Ser Asn Arg Thr Trp Thr Asn Tyr Thr Gln Cys Asn
96
                                      120
                                                          125
97
                 115
```

1/

RAW SEQUENCE LISTING DATE: 03/26/2002 PATENT APPLICATION: US/10/051,186 TIME: 09:31:38

Input Set : N:\Crf3\RULE60\10051186.raw
Output Set: N:\CRF3\03262002\J051186.raw

```
Val Asn Thr His Glu Lys Val Lys Thr Ala Leu Asn Leu Phe Tyr Leu
98
                                                       140
              130
                                   135
99
          Thr Ile Ile Gly His Gly Leu Ser Ile Ala Ser Leu Leu Ile Ser Leu
100
                                                                         160
                               150
                                                    155
101
          145
          Gly Ile Phe Phe Tyr Phe Lys Ser Leu Ser Cys Gln Arg Ile Thr Leu
102
                                                170
                           165
103
          His Lys Asn Leu Phe Phe Ser Phe Val Cys Asn Ser Val Val Thr Ile
104
                                                                 190
                       180
                                            185
105
          Ile His Leu Thr Ala Val Ala Asn Asn Gln Ala Leu Val Ala Thr Asn
106
                                                             205
                                        200
107
                   195
          Pro Val Ser Cys Lys Val Ser Gln Phe Ile His Leu Tyr Leu Met Gly
108
               210
                                    215
                                                        220
109
          Cys Asn Tyr Phe Trp Met Leu Cys Glu Gly Ile Tyr Leu His Thr Leu
110
                                                                         240
                               230
                                                    235
111
          Ile Val Val Ala Val Phe Ala Glu Lys Gln His Leu Met Trp Tyr Tyr
112
                                                250
                                                                     255
113
                           245
          Phe Leu Gly Trp Gly Phe Pro Leu Ile Pro Ala Cys Ile His Ala Ile
114
                                            265
                                                                 270
115
                       260
          Ala Arg Ser Leu Tyr Tyr Asn Asp Asn Cys Trp Ile Ser Ser Asp Thr
116
                                        280
                                                             285
117
                   275
          His Leu Leu Tyr Ile Ile His Gly Pro Ile Cys Ala Ala Leu Leu Val
118
119
               290
                                    295
                                                        300
120
          Asn Leu Phe Phe Leu Leu Asn Ile Val Arg Val Leu Ile Thr Lys Leu
                               310
                                                    315
121
          305
          Lys Val Thr His Gln Ala Glu Ser Asn Leu Tyr Met Lys Ala Val Arg
122
                                                330
123
                           325
          Ala Thr Leu Ile Leu Val Pro Leu Leu Gly Ile Glu Phe Val Leu Ile
124
                                                                 350
                                            345
125
                       340
          Pro Trp Arg Pro Glu Gly Lys Ile Ala Glu Glu Val Tyr Asp Tyr Ile
126
                                                             365
                                        360
127
                   355
          Met His Ile Leu Met His Phe Gln Gly Leu Leu Val Ser Thr Ile Phe
128
129
                                   375
                                                        380
               370
          Cys Phe Phe Asn Gly Glu Val Gln Ala Ile Leu Arg Arg Asn Trp Asn
130
                                                    395
                               390
131
          385
          Gln Tyr Lys Ile Gln Phe Gly Asn Ser Phe Ser Asn Ser Glu Ala Leu
132
                                                                     415
                           405
                                                410
133
          Arg Ser Ala Ser Tyr Thr Val Ser Thr Ile Ser Asp Gly Pro Gly Tyr
134
135
                       420
                                            425
                                                                 430
          Ser His Asp Cys Pro Ser Glu His Leu Asn Gly Lys Ser Ile His Asp
136
                                       440
                                                            445
                   435
137
138
          Ile Glu Asn Val Leu Leu Lys Pro Glu Asn Leu Tyr Asn
                                                        460
              450
                                   455
139
141 <210> SEQ ID NO: 3
142 <211> LENGTH: 30
143 <212> TYPE: DNA
144 <213> ORGANISM: Oligonucleotide
145 <400> SEQUENCE: 3
146
          gactaaagct taatgttata cagcatattt
148 <210> SEQ ID NO: 4
```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/051,186

DATE: 03/26/2002

TIME: 09:31:38

Input Set : N:\Crf3\RULE60\10051186.raw
Output Set: N:\CRF3\03262002\J051186.raw

```
149 <211> LENGTH: 33
150 <212> TYPE: DNA
151 <213> ORGANISM: Oligonucleotide
152 <400> SEQUENCE: 4
153
           gaacttctag accgtcaatt atataaattt ttc
                                                                                   33
155 <210> SEQ ID NO: 5
156 <211> LENGTH: 34
157 <212> TYPE: DNA
158 <213> ORGANISM: Oligonucleotide
159 <400> SEQUENCE: 5
160
           gtccggatcc gccaccatgt tatacagcat attt
                                                                                   34
162 <210> SEQ ID NO: 6
163 <211> LENGTH: 34
164 <212> TYPE: DNA
165 <213> ORGANISM: Oligonucleotide
166 <400> SEQUENCE: 6
          gtccggatcc gccaccatgt tatacagcat attt
167
                                                                                   34
169 <210> SEQ ID NO: 7
170 <211> LENGTH: 11
171 <212> TYPE: PRT
172 <213> ORGANISM: Peptide
173 <400> SEQUENCE: 7
          Lys Ser Ile Arg Ile Gln Arg Gly Pro Gly Arg
174
175
          1
                           5
                                                10
177 <210> SEQ ID NO: 8
178 <211> LENGTH: 490
179 <212> TYPE: PRT
180 <213> ORGANISM: Homo sapiens
181 <400> SEQUENCE: 8
          Met Arg Phe Thr Phe Thr Ser Arg Cys Leu Ala Leu Phe Leu Leu
182
183
                           5
                                                10
                                                                    15
          Asn His Pro Thr Pro Ile Leu Pro Ala Phe Ser Asn Gln Thr Tyr Pro
184
185
186
          Thr Ile Glu Pro Lys Pro Phe Leu Tyr Val Val Gly Arg Lys Lys Met
187
                   35
                                       40
188
          Met Asp Ala Gln Tyr Lys Cys Tyr Asp Arg Met Gln Gln Leu Pro Ala
189
190
          Tyr Gln Gly Glu Gly Pro Tyr Cys Asn Arg Thr Trp Asp Gly Trp Leu
191
          65
                               70
                                                    75
                                                                        80
          Cys Trp Asp Asp Thr Pro Ala Gly Val Leu Ser Tyr Gln Phe Cys Pro
192
193
                           85
                                               90
194
          Asp Tyr Phe Pro Asp Phe Asp Pro Ser Glu Lys Val Thr Lys Tyr Cys
195
                                           105
196
          Asp Glu Lys Gly Val Trp Phe Lys His Pro Glu Asn Asn Arg Thr Trp
197
                  115
                                       120
                                                            125
198
          Ser Asn Tyr Thr Met Cys Asn Ala Phe Thr Pro Glu Lys Leu Lys Asn
199
              130
                                   135
                                                       140
200
          Ala Tyr Val Leu Tyr Tyr Leu Ala Ile Val Gly His Ser Leu Ser Ile
201
          145
                               150
                                                   155
                                                                        160
```

RAW SEQUENCE LISTING DATE: 03/26/2002 PATENT APPLICATION: US/10/051,186 TIME: 09:31:38

Input Set : N:\Crf3\RULE60\10051186.raw
Output Set: N:\CRF3\03262002\J051186.raw

```
Phe Thr Leu Val Ile Ser Leu Gly Ile Phe Val Phe Phe Arg Lys Leu
202
                                                                     175
203
                                                170
                           165
          Thr Thr Ile Phe Pro Leu Asn Trp Lys Tyr Arg Lys Ala Leu Ser Leu
204
                                            185
                                                                 190
205
                       180
          Gly Cys Gln Arg Val Thr Leu His Lys Asn Met Phe Leu Thr Tyr Ile
206
                                        200
                                                             205
207
                   195
          Leu Asn Ser Met Ile Ile Ile Ile His Leu Val Glu Val Val Pro Asn
208
                                                        220
209
                                    215
          Gly Glu Leu Val Arg Arg Asp Pro Val Ser Cys Lys Ile Leu His Phe
210
                                                    235
                                                                         240
211
          225
                               230
          Phe His Gln Tyr Met Met Ala Cys Asn Tyr Phe Trp Met Leu Cys Glu
212
                                                                     255
                                                250
213
                           245
          Gly Ile Tyr Leu His Thr Leu Ile Val Val Ala Val Phe Thr Glu Lys
214
                                            265
215
                       260
          Gln Arg Leu Arg Trp Tyr Tyr Leu Leu Gly Trp Gly Phe Pro Leu Val
216
                                                             285
                                        280
217
                   275
          Pro Thr Thr Ile His Ala Ile Thr Arg Ala Val Tyr Phe Asn Asp Asn
218
                                    295
                                                        300
219
               290
          Cys Trp Leu Ser Val Glu Thr His Leu Leu Tyr Ile Ile His Gly Pro
220
221
                               310
                                                    315
          305
          Val Met Ala Ala Leu Val Val Asn Phe Phe Phe Leu Leu Asn Ile Val
222
223
                                                330
                           325
          Arg Val Leu Val Thr Lys Met Arg Glu Thr His Glu Ala Glu Ser His
224
225
                                                                 350
                       340
                                            345
          Met Tyr Leu Lys Ala Val Lys Ala Thr Met Ile Leu Val Pro Leu Leu
226
                                                             365
                                        360
227
                   355
          Gly Ile Gln Phe Val Val Phe Pro Trp Arg Pro Ser Asn Lys Met Leu
228
229
                                    375
                                                        380
              370
          Gly Lys Ile Tyr Asp Tyr Val Met His Ser Leu Ile His Phe Gln Gly
230
                                                                         400
                               390
                                                    395
231
          385
          Phe Phe Val Ala Thr Ile Tyr Cys Phe Cys Asn Asn Glu Val Gln Thr
232
                                                410
                                                                     415
                           405
233
234
          Thr Val Lys Arg Gln Trp Ala Gln Phe Lys Ile Gln Trp Asn Gln Arg
235
                                            425
                       420
          Trp Gly Arg Arg Pro Ser Asn Arg Ser Ala Arg Ala Ala Ala Ala Ala
236
237
                                        440
                                                             445
                   435
          Ala Glu Ala Gly Asp Ile Pro Ile Tyr Ile Cys His Gln Glu Pro Arg
238
                                                        460
239
              450
                                   455
          Asn Glu Pro Ala Asn Asn Gln Gly Glu Glu Ser Ala Glu Ile Ile Pro
240
                                                                         480
                                                    475
241
          465
                               470
242
          Leu Asn Ile Ile Glu Gln Glu Ser Ser Ala
243
                           485
245 <210> SEQ ID NO: 9
246 <211> LENGTH: 464
247 <212> TYPE: PRT
248 <213> ORGANISM: Rat
249 <400> SEQUENCE: 9
          Met Met Asp Lys Cys Thr Leu Cys Phe Leu Phe Leu Leu Leu
250
251
                                                10
```

VERIFICATION SUMMARY

3 1 1 W

DATE: 03/26/2002 TIME: 09:31:39

PATENT APPLICATION: US/10/051,186

Input Set : N:\Crf3\RULE60\10051186.raw
Output Set: N:\CRF3\03262002\J051186.raw